



Newsletter
January 2000

Successful Campaign Launch!

The 'Shut Hinkley 'A' Campaign has got off to a flying start with much media coverage ranging from TV news and documentary broadcasts, through radio news items with interviews, to lengthy newspaper articles.

Read on for more details...

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HTV Documentary on the Hinkley 'A' Campaign! 'West Eye View' will be shown on Tuesday 1st February at 7.30 pm. Essential viewing!

John Large to Speak in Taunton!

John Large, Consultant Nuclear Engineer and Co-Designer of Magnox power stations will speak frankly on Major Problems at Hinkley 'A'. On Friday 3rd March 8.00 pm at the Old Library, Corporation St. Bring a friend!

HTV Documentary

'West Eye View' goes out on Tuesday 1st February at 7.30 pm. The team making the documentary received an award for their incisive journalism. They interviewed several campaigners including **Patrick Van Den Bulck**, our advisor at National CND, who spoke about technical problems at Hinkley 'A' and predicted its closure announcement this year for 2005 as it is likely to fail an economic test to be applied to it in the preparation for privatisation.

Hugh Richards from Wales Anti Nuclear Alliance spoke about the similarities with Trawsfynydd, in particular the weakness of the Pressure Vessels.

Chris Busby from the Low Level Radiation Campaign gave details of how radiation from the routine operation of Hinkley can harm people's health, particularly if they live near muddy/sandy tidal waters where dust is breathed in containing particles of radiation. A resident in Combwich suffering from cancer was also interviewed.

BNFL's standard response to the campaign was that they would not get a licence to operate if they were considered unsafe by the Nuclear Installations Inspectorate.



Campaign Review

A couple of days after our last newsletter went out the Features Editor for HTV rang up and arranged a meeting to hear more details of our Shut Hinkley 'A' Campaign. Before Christmas the film crew came to Somerset to begin a long process of interviews which also took them to Trawsfynydd, the redundant sister station of Hinkley 'A'.

During this time our press releases were picked up at an increasing rate by various newspapers, principally the West Somerset Free Press but also the Western Daily Press and Chew Valley Gazette. In anticipation of our Public Meeting, BBC Points West and West Country TV News both put out news items which included interviews with Consultant Nuclear Engineer John Large. John, who helped design the Magnox reactors spoke forcefully about the risks from operating Hinkley 'A' at its advanced age and without 'Secondary Containment'. He said if the station was designed today it would not get a licence to operate!

On the heels of the TV News programmes local radio stations joined in and put out news items which included interviews with Hugh Richards, key mover in the campaign which finished Trawsfynydd. BBC Radio Bristol/Somerset Sound, Orchard FM and Weston FM all have covered our story.

In our **Campaign Strategy Meeting** on 12th January Patrick Van Den Bulck from National CND gave a detailed account of problems at Hinkley 'A' and BNFL in general, stating that its Executive Board was split with a new element pushing for concentrating solely on cleaning up redundant plants and spent fuel and abandoning electricity production and reprocessing!

Bridgwater Public Meeting

On a cold, foggy evening thirty four people turned out to listen to our line of speakers.

Richard Bramhall, Coordinator of the Low Level Radiation Campaign and Editor of *Radioactive Times* kicked off with an attack on the National Radiological Protection Board. He accused them of bogus science in calculating the harm caused by radiation, instead offering evidence that very low levels can trigger cancer and especially perinatal deaths and stillbirths, running into thousands per year around the world.

Helen Wallace, Greenpeace Nuclear Campaigner, spoke about the worst nuclear accident since Chernobyl at Tokaimura in Japan last September. She described how one man died and 200 were badly irradiated when untrained workers panicking because they were running late on their task poured too much enriched Uranium into a tank triggering an uncontrolled chain reaction.

The fire brigade had no protective clothing and 300,000 received a dose of radiation. The next day a shipment of MOX reprocessed fuel arrived in Japan with forged safety documents from the suppliers BNFL. It also transpired that the Nuclear Installations Inspectorate knew about the suspect nuclear fuel but did not alert the Japanese government as it was **not likely to endanger Britons!**

BNFL, the owners of Hinkley 'A' have now probably lost this contract along with all hopes of starting operations at a new £400m MOX plant at Sellafield which may have to shed 1800 staff. Helen continued that BNFL's liabilities are piling up as the value of Plutonium, produced by Magnoxes like

Hinkley 'A', has shrunk to nothing while it is very costly to keep safe.

Hugh Richards, a qualified architect, reminding us that the Sixties was not a good period in the construction industry, gave illustrated details of the insides of Hinkley 'A' and quoted the nuclear industry itself with examples of bad practice, corrosion, oxidation, embrittlement, component failures and cracks of up to three meters long in gas duct welds on Magnoxes.

He said that Hinkley 'A', shut for repairs and assessment virtually since last April, had been subject to a 14% reduction in temperature in recent years to try to cut down on the rate of corrosion in the gas outlet area. Unfortunately the temperature needs to be kept high to reduce embrittlement which he considered to be a terminal problem at the station. He showed with scale diagrams how unshielded radiation from the Reactor Core has been assaulting the Top Coolant Duct welded on to the Reactor Pressure Vessel to the point that embrittlement there must now match that at Trawsfynydd when it was closed.

Hugh detailed the industry's revised worst case scenario of a ruptured Top Duct creating a pressure shock which would distort the Reactor Core, disabling the Control Rods. Air sucked in through the ruptured duct would ignite the fuel catastrophically.

He went on to say that the one and a half mile evacuation area around the station given in the Emergency Plans is woefully inadequate and that our community should press for Hinkley 'A' to stay closed until realistic new plans can be drawn up. It was agreed that we would press for this.

The ensuing discussion included strong anxieties about the fuel flasks passing through Bridgwater.

John Large Concerns

Our decision to start this campaign goes back to November last year. We contacted **John Large**, a Consultant Nuclear Engineer, who gave us a list of design and operational problems at Hinkley 'A'. Some of his concerns are restated here, on which he will say more on 3rd March in Taunton:

A build-up of '**Wigner Energy**' in the reactor core. This build-up, caused by high levels of radiation, can suddenly be released, potentially causing the normally inert graphite in the core to ignite leading ultimately a Windscale type accident.

The reactor core is braced like a wooden barrel with hoops. This **Garter Assembly** is now in a very brittle condition. The stability of the reactor core is essential for accident-free running but 'embrittlement' of the garter assembly means that cannot be guaranteed.

The CO² coolant, which circulates around the reactor core is not pure. It necessarily contains an amount of carbon monoxide. When irradiated this produces carbon powder which accumulates as soot in the cooling channels, preventing the coolant gas from flowing correctly and causing distortion to the graphite core containing the fuel rods.

The Reactor Pressure Vessel (RPV) is a huge steel container for the reactor core, to which coolant ducts are welded allowing the circulation of coolant gas. A process known as '*embrittlement*', where the steel has lost a significant amount of its ductility after years of irradiation and fluctuating temperatures, means that this crucial body could shatter unpredictably like a car windscreen. The risk is greatest on starting up or

closing down the reactor. Together with an 80 per cent build-up of 'Wigner energy', this was one of the reasons for closing Trawsfynydd power-station in 1991, built in the same year as Hinkley 'A' in 1965. The pressure vessel, because of its high radioactivity, cannot be visually examined and so mathematical calculations and extrapolations are the basis for its safety case.

In the **Hinkley 'A' Emergency Handbook** the recommended response in the event of a coolant-circuit failure includes applying *wet lagging, fibre-glass matting with epoxy or a tarpaulin* to seal the escaping gas! As indicated above, this gas is at an extreme temperature, is under pressure from the circulating pumps which automatically run for ten minutes after such a breach, and is highly radioactive, making such repairs lethal to the technician even if they were possible.

John Large contends that it is not just the age of the station which is a problem but also its design, which in common with Chernobyl and Tokaimura, has no '**secondary containment**'. This would hold fission products in the event of many accidents and is present in all newer designs. **If it were designed today, Hinkley 'A' would not get a licence to operate.**

British Energy/NII Clash

The operators of Hinkley 'B', British Energy have today (27th January) been issued a report stopping them from making more planned cuts in their workforce in order that safety margins are maintained. BE has been in dispute with the regulators, the Nuclear Installations Inspectorate after the discovery that their stations were

operating with staff unqualified to deal with emergency situations and that corners were being cut due to staff redundancies. More than a dozen incidents occurred in BE stations last year including fires and a coolant leak that forced reactors to shut down. BE made £298m profit last year. Hugh Richards reported from the NII Anniversary Conference in November that it is accepted that all accident handling and monitoring at Hinkley Point is left to the publicly owned (for the moment) Hinkley 'A'.

Future Events

- **HTV Documentary:** Tuesday 1st February at 7.30 pm.
- **John Large Public Meeting:** Friday 3rd March at 8.00 pm. The Old Library, Taunton.
- **AGM:** At 7.00 pm just before the John Large meeting, same venue.
- **Chernobyl Day,** Wednesday 26th April: Spoof Twinning Ceremony - Hinkley Point/Chernobyl. Evening Public Meeting with Patrick Van Den Bulck, Chris Busby and Greenpeace speaker.

What You Can Do

Please put your concerns about Hinkley 'A' in writing to your MP and the Health & Safety Executive, Nuclear Safety Directorate, Rose Court, 2, Southwark Bridge, LONDON SE1 9HS.

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